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Our File No.

August 6, 1999

Express Mail No. EM1577557214S

Box PATENT APPLICATION
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Commissioner of Patents
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Washington, D.C. 20231

Dear Sir:

Transmitted herewith for filing is the patent application of:

Inventor: John A. Turak
For: Combination Swimming, Walking, Running, Massage,
Therapeutic, and Recreational Device

Enclosed are:

- (1) Specifications (16) pages
- (2) 6 Claims
- (3) Drawings (7 sheets) - 9 Figures.
- (4) One Verified Statement claiming Small Entity Status-Independent Inventor - John A. Turak, Anson J. Flake
- (5) One Verified Statement Claiming Small Entity Status - Small Business Concern
- (6) One Declaration and Power of Attorney signed by John A. Turak
- (7) One Declaration and Power of Attorney signed by Anson J. Flake
- (8) Fees of \$500.00.
- (9) Certificate of Mailing by Express Mail

Pursuant to the provisions of 37 C.F.R. Subsections 1.10 and 1.53, applicant respectfully requests that this application be assigned a serial number and a filing date of August 6, 1999, the date upon which the application was mailed to the Patent and Trademark Office by Express Mail.

Dated: 8-6-99

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08/06/99

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) & 1.27(b)--INDEPENDENT INVENTOR**

Docket Number (OptionsL)

Applicant or Patentee: John A. Turak, Anson J. Flake

Application or Patent No.:

Filed or Issued:

Title: Combination Swimming, Walking, Running, Massage, Therapeutic, and Recreational Device

As a below-named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office with regard to the invention entitled Combination Swimming, Walking, Running, Massage, Therapeutic, and Recreational Device described in:

- the specification filed herewith with title as listed above
- the application identified above
- the patent identified above

I have not assigned, granted, conveyed, or licensed, and am under no obligation under contract or law to assign, grant, convey, or license, any rights in the invention to any person who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below.

- No such person, concern or organization exists
- Persons, concerns, or organizations listed below

FULL NAME: Hydroworx International, Inc.

ADDRESS: 1961 Fulling Mill Rd., Middletown, PA 17057

 INDIVIDUAL SMALL BUSINESS CONCERN NONPROFIT ORGANIZATION

Separate verified statements are required from each person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as small entity is no longer appropriate. (37 CFR 1.28 (b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

John A. Turak

NAME OF INVENTOR

Signature of Inventor

8/3/99Anson J. Flake

NAME OF INVENTOR

Signature of Inventor

8/3/99

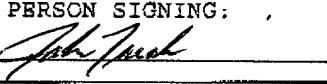
NAME OF INVENTOR

Signature of Inventor

Date

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VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f) & 1.27(c))--SMALL BUSINESS CONCERN		Docket Number (Optional)
Applicant or Patentee: John A. Turak, Anson J. Flake		
Application or Patent No.:		
Filed or Issued:		
Title: Combination Swimming, Walking, Running, Massage, Therapeutic, and Recreational Device I hereby declare that I am		
<input checked="" type="checkbox"/> the owner of the small business concern identified below: <input type="checkbox"/> an official of the small business concern empowered to act on behalf of the concern identified below:		
NAME OF SMALL BUSINESS CONCERN:		
ADDRESS OF SMALL BUSINESS CONCERN:		
<p>I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 37 CFR 1.9(d), and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees to the United States Patent and Trademark Office, in that the number of employees of the concern including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.</p>		
<p>I hereby declare that rights under contract law have been conveyed and remain with the small business concern identified above with regard to the invention described in:</p>		
<input checked="" type="checkbox"/> the specification filed herewith with title as listed above <input type="checkbox"/> the application identified above <input type="checkbox"/> the patent identified above		
<p>If the rights held by the above-identified small business concern are not exclusive, each individual, concern, or organization having rights in the invention must file separate verified statements averring to their status as small entities, and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).</p>		
<p>Each person, concern or organization having any rights in the invention is listed below:</p>		
<input type="checkbox"/> no such person, concern or organization exists <input checked="" type="checkbox"/> each such person, concern, or organization is listed below		
FULL NAME: HydroWarx International, Inc. ADDRESS: 1961 Fulling Mill Rd., Middletown, PA 17057 <input checked="" type="checkbox"/> INDIVIDUAL <input type="checkbox"/> SMALL BUSINESS CONCERN <input type="checkbox"/> NONPROFIT ORGANIZATION		
<p>Separate verified statements are required from each person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)</p>		
<p>I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as small entity is no longer appropriate. (37 CFR 1.28 (b)).</p>		
<p>I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.</p>		
NAME OF PERSON SIGNING: John Turak and Anson Flake		
TITLE OF PERSON SIGNING IF OTHER THAN OWNER:		
ADDRESS OF PERSON SIGNING:		
SIGNATURE: 	and	DATE  August 5, 1999

Burden Hour Statement: This form is estimated to take 0.3 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Doc #118980

INVENTION: COMBINATION SWIMMING, WALKING, RUNNING, MASSAGE,
THERAPEUTIC, AND RECREATIONAL DEVICE

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BACKGROUND OF INVENTION:

This invention relates to the field of aquatic exercise, therapy, fitness and recreational devices.

Current devices related to this include spas used for recreation and massage; deep tank treadmill devices having a treadmill at the bottom of a deep tank of water, currently costing well over \$100,000.00; large, shallower swim jet tanks allowing a swimmer to swim in place against the flow of fast moving water provided by swim jets placed at the front of the tank, also used primarily in commercial settings, and expensive as well. Except for the typical, small, home massage and swim spas, these individual devices are large, expensive and consequently utilized only in commercial applications.

Spas are popular in part because of their ability to be made inexpensively, and thus sold inexpensively. This is due primarily to the fact that they can be made in a single seamless unit using low cost manufacturing methods such as vacuum-forming thermo plastic. This method works because of the shallow nature of the spa (typically no more than 2-3 feet deep), that minimizes the

1 need to consider excessive weight and water pressure problems.
2 Other spa manufacturing processes include the forming of fiberglass
3 or acrylic around a mold.

4 Conversely, a swim jet device has typically at least sixty
5 (60) square feet of surface area (typically around 14 feet long by
6 4 to 5 feet wide) so that an adult swimmer can extend lengthwise
7 with fully stretched arms during the swimming motion. Moreover,
8 these tend to be deeper to allow the full downward extension of the
9 arm during swimming. Consequently these devices are large and have
10 required piece by piece construction of a large tank for that
11 purpose. The extra depth of those devices provides additional
12 significant water pressure at the lower depths as there can be 1500
13 to 2000 gallons of water in such a tank.

14 Aquatic treadmill chambers or pools require even additional
15 depth so that an individual can stand at least chest high in the
16 water while walking or running on the treadmill. At this level, it
17 is often as much as 5 feet deep. Prior art treadmill devices
18 include primarily chambers where an individual climbs in and water
19 is brought in to that individual under a supervised setting, or
20 larger pools where the treadmill is, in an expensive arrangement,
21 raised to the top of the pool while the user walks on, then lowered
22 down to the bottom. In either event, these devices can have
23 typically several thousand gallons of water, and in a depth of 5
24 feet require special considerations for significantly greater
25 weight and water pressure at the lower depths, and special
26 considerations for easily allowing maintenance, adjustment of the
27 treadmill, easy egress and ingress to the lower depths for patients
28 in therapy that cannot walk up and down ladders, and require other

1 individuals to assist either in supervising or raising or lowering
2 of the treadmill platform; also extra safety considerations have to
3 be taken into account as one runs in place on the treadmill at the
4 bottom of the chamber. These enclosures are also usually
5 constructed piece by piece rather than in a single seamless format.

6 To combine all three types of activities and devices discussed
7 above into one seamless modular format results in a still larger
8 pool that not only has large surface area for the swim in place
9 swim jet arrangement, but also an extra deep pool to allow for one
10 to stand up for the treadmill exercises, heretofore not done in any
11 seamless device format that would allow for inexpensive
12 construction that is structurally sound, easy to ship to the
13 consumer, easy to install and use for consumer use, that is easy
14 to maintain and adjust, and is likewise safe with minimized
15 supervision required in the consumer setting.

16 It is therefore the object of this invention to provide just
17 such a combination, multiuse device: an all in one, inexpensive,
18 easy to use and maintain, primarily consumer device that is highly
19 functional. This is accomplished by utilizing what is currently
20 known to be the deepest vacuum thermo plastic created seamless spa
21 tank. It utilizes unique design features to not only strengthen
22 the structural integrity at the bottom depth of the pool, but also
23 to provide an integrated treadmill receiving pan or cavity that
24 secures the treadmill. It also allows the treadmill top to be
25 flush with an integrated safety step off area around the treadmill,
26 such that the snug fit in the pan leaves a minimal distance between
27 the treadmill and the side of the container, at flush level,
28 covered with a safety cover, all creating an attractive and safe,

1 common, flush and level treadmill/floor bottom. An access chamber
2 for access to the treadmill shaft is also provided. The tank has
3 steps integrated into the tank structure, with rise and runs
4 designed for the intended use. The tank has structural stiffening
5 ribs encircling the tank in equivalently spaced relationship
6 between the top and bottom of the container. This allows the tanks
7 to combine for easy shipment of multiple units for mass production.
8 Consequently the tank can be manufactured and shipped
9 inexpensively, and installed easily, in relatively large numbers.

10 Other objects and features of the invention and the manner in
11 which the invention achieves its purpose will be appreciated from
12 the foregoing and the following description and the accompanying
13 drawings which exemplify the invention, it being understood that
14 changes may be made in the specific method and apparatus disclosed
15 herein without departing from the essentials of the invention set
16 forth in the appended claims.

1 DESCRIPTION OF THE DRAWINGS:

2 Figure 1 is a top view of the invention.

3 Figure 2 is a side view of the invention.

4 Figure 3 is an end view of the invention.

5 Figure 4 is a side view of the bottom (middle portion of
6 bottom omitted as indicated by line breaks) showing the motor at
7 one end.

8 Figure 5 is a side view of the treadmill.

9 Figure 6 is a side view of the tension adjusting mechanism.

10 Figure 7 is a top view of the treadmill.

11 Figure 8a is a top view of the treadmill assembly showing the
12 cross-suspension base channels.

13 Figure 8b is a side view of the treadmill assembly showing the
14 individual suspension units.

15 Figure 9 is a side view of the individual suspension units.

1 DESCRIPTION OF THE PREFERRED EMBODIMENTS:

2 The preferred mode of the invention is shown in Figure 1. The
3 tank 3 is, a single seamless enclosure, having a depth of at least
4 5 feet 4 inches. An individual can stand, run or walk on the
5 treadmill 35. As discussed the seamless containers of this depth
6 require special considerations for structural integrity due to the
7 enormous amount of water pressure at the lower depths. Here,
8 seamless refers to any molded device, whether built on top of a
9 mold or vacuumed formed to a mold. Plastic, as used herein, refers
10 to any polyvinyl, polymer, plastic material, man made or otherwise,
11 and also includes acrylic and fiberglass.

12 Tank 3, at a minimum 14 feet long (sufficient to allow an
13 adult individual to tread or swim at the top) provides for a
14 minimum of 2200 gallons of water or more. Such an incredibly large
15 amount of water creates tremendous water pressure at the lower
16 depths. Moreover, the constant running and moving activity of an
17 individual in the pool provides additional stress on the structure
18 as the water is agitated at the lower depths. To create the single
19 seamless tank of the tremendous size involved, capable of handling
20 the moving treadmill and other significant water jet motion
21 therein, special considerations must be given. A thermo plastic
22 method for creating tubs is typically used where a large sheet of
23 plastic material is heated and then pulled by vacuum (vacuum-
24 formed) against the surface of a forming mold. To this inventor's
25 knowledge, no vacuum-formed structure of this size and more
26 particularly this depth has been created because of the
27 difficulties in drawing the plastic to such a depth, while
28 retaining the sufficient structural integrity at the lower depths

1 to handle the greater water pressure and depths.

2 The invention not only achieves structural integrity by
3 providing a smaller recess having stiffening bends and corners at
4 42, 43, 44 and 45 this recess structure also provides a treadmill
5 receiving pan or cavity that also defines a safety step off
6 landing.

7 The treadmill 35 fits snugly within the cavity and is attached
8 utilizing screws and other affixing devices (that do not penetrate
9 completely through the plastic structure), at 36, 37, 38 and 40.
10 By having the recess perimeter 32 much smaller than the next
11 highest rib 52, a safety walk off ledge 54 is created surrounding
12 the treadmill. The spacing 56 around the treadmill between the
13 treadmill and the tank perimeter 32 is minimized (in the preferred
14 mode 3/4 inch). A drive shaft access chamber 27 is created (shown
15 also as 51 in Figure 3) to allow the treadmill drive shaft to
16 penetrate the tank. The chamber also provides clearance for
17 assembling the treadmill into the tank. The treadmill shaft with
18 corresponding drive wheel pulley shaft 23 and drive wheel pulley 25
19 so as to connect to the motor 19 sitting on motor mount 21, via the
20 smaller motor pulley 18 and corresponding belt 16. A cover plate
21 covers not only the maintenance access chamber 27, but also the gap
22 56 that surrounds the treadmill. The cover plate is preferably of
23 flat stainless steel material approximately 5 inches wide in the
24 preferred mode. The cover plate covers not only the outer frame 60
25 of the treadmill, but it also extends over to reach a small portion
26 of the tank recess perimeter 32.

27 By creating the cavity 32 to fit the treadmill could create
28 additional problems could be created by limiting access to adjust

1 the tension of the treadmill. Obviously it is not desirable to
2 empty the tank of 2200 gallons of water to make simple tension
3 adjustments that sometimes are required on the treadmill.
4 Consequently, it is necessary to adjust the treadmill from above
5 without lifting the treadmill out, something that is extremely
6 physically difficult at the depths of water involved. Belt tracking
7 is also important for not only quality control, but to decrease
8 maintenance requirements on the entire treadmill if the belt is not
9 continuously maintained in an optimum position. Consequently easy
10 access to adjust the belt by a typical consumer is important. This
11 easy access is achieved via vertical access to an adjustment
12 mechanism 14. One can simply extend into the water a long wrench,
13 access the adjustment mechanism 14 from above in this fashion, and
14 by turning the same either clockwise or counter-clockwise, adjust
15 the belt tension. A similar corresponding adjustment mechanism 16
16 exists on the opposing side of the treadmill belt. Adjustment of
17 these two in combination provides for the correct tensioning of the
18 treadmill. A detailed description of the tension adjusting
19 mechanisms 14 and 16 are discussed further herein.

20 To provide additional strength for such a large modular
21 container, periodic ribs are spaced from top to bottom. In one
22 mode, these ribs 61, 63, 65 and 67 also correspond with steps 71,
23 73, 75 and 77 (also 11, 9, 7 and 5).

24 In the swimming mode, swim jets 31 and 33 have outlets 47 and
25 49 connected to pump and motor means that forces water out the jets
26 from the front end in which they are located to the opposing rear-
27 end so as to create a sufficiently powerful and fast flow of moving
28 water to allow a swimmer to swim in place, much like a runner runs

1 in place on the treadmill. Controls at 29, in the preferred mode
2 are comprised of a control panel board with the necessary switches
3 to control not only the power and speed of the swim jets to allow
4 for slower or faster swimming, but also the power and speed of the
5 treadmill. The control panel also provides an emergency stop
6 means.

7 Figure 4 discloses a close-up side view of the motor and
8 treadmill assembly (on the opposing side wall from that shown in
9 Fig. 1). The motor 81 rotationally moves the smaller pulley wheel
10 83 to rotate the belt 85 that is connected to the larger pulley 87
11 driving the shaft 89 to the treadmill. The shaft penetrates the
12 tank through a hole provided in the tank located in the side of the
13 treadmill receiving cavity. To prevent leaks, it is desired in the
14 preferred mode that this portion of the pan (where that hole is
15 drilled) be more vertical. A pressure seal is utilized between the
16 tank and the treadmill drive shaft.

17 Also shown in Figure 4 is a side view of the tension
18 adjustment means 91 shown in more detail in Figure 5 and 6, tension
19 means is comprised of a rigid wedge shaped member 90 having
20 elongated threaded hole 94 through which correspondingly threaded
21 pin 95 extends, the non threaded tip of which extends through base
22 plate 96. The pin is comprised of a hex headed bolt, access to
23 which is gained through a hole in the frame of the treadmill. As
24 the bolt is rotated counter-clockwise (looking down from above),
25 the rigid wedge shaped member 94 is forced downward and places
26 pressure against the treadmill roller 97 forcing the treadmill
27 roller 97 backwards further into adjusting slot 98 in which the
28 shaft 99 of the roller rests. Consequently, such an adjustment

1 tightens the belt. To reduce the tension on the treadmill belt,
2 the bolt-pin 95 is rotated in the opposite direction and
3 correspondingly moves the wedge shaped member upwards allowing the
4 treadmill roller and shaft to move forward.

5 Figure 5 also shows a side view of the treadmill with optional
6 support bar 92 removably inserted into corresponding holes 93 in
7 the treadmill.

8 Figure 7 shows a top detailed view of the treadmill with cover
9 plate 100. It will be seen that the cover plate extends over the
10 lip 32 (32 in Figure 1 and in Figure 7 are the same) of the
11 treadmill recess cavity in the tank.

12 In the preferred mode, the treadmill has suspension/cushioning
13 means, shown in Figure 8a, 8b, and 9, to cushion the impact of the
14 feet against the treadmill so as to ease the impact physiologically
15 on the feet, knees, legs, etc. during running. Upper channel
16 members 110, 112, 14, 116, 118, 120, 122, 128 each have two ends,
17 each end connected to the top portion of a suspension device (130,
18 132, 134, 136, 138, respectively). Each suspension device is
19 connected to rigid 'C' channel treadmill frame side members 140
20 respectively. The individual suspension devices are shown in more
21 detail in Figure 9. The upper channel member 150 is itself an
22 upside down rigid 'C' channel member, for receiving in its interior
23 152 a correspondingly shaped top portion 154 of an elastomer member
24 156, which top portion is smaller than the bottom portion (base)
25 158 of the elastomer member 154, thus creating a 'stop' or ledge
26 160 for extra support and securability of the 'C' channel 150. The
27 base 158 rests snugly upon, and is connected to, base member 170,
28 which base channel member is connected to the frame of the

1 treadmill and extends to the opposing side base channel member.
2 'C' channel 150 is smaller than 'C' channel 170 to provide
3 clearance as the elastomer is compressed. The elastomer is defined
4 as any material having the compression properties of a hard
5 rubberlike material, that tend to compress or absorb energy upon
6 impact. The treadmill upper platform 172, on which the treadmill
7 belt rides, is connected to each of the upper channels. Thus, in
8 use, when an impact occurs against the treadmill during running,
9 the treadmill compresses the appropriate elastomer material of the
10 corresponding suspension device, causing the elastomer to compress
11 accordingly and absorb the energy of the impact. In another mode
12 of the invention, the treadmill has padding means 180 for creating
13 an additional cushion for impact absorption. The padding means 180
14 is comprised of any soft rubber-like material, or material having
15 compression properties, situated on the underside of the platform
16 172.

17 Consequently, it will be seen that what has been invented is
18 a single tank unit of a significant depth and size to allow an
19 individual easy ingress and egress to exercise on the treadmill or
20 a full length swim in place swim jet apparatus, that allows for
21 safe use by the user by allowing for safety step off landing flush
22 with the treadmill in a structurally sound fashion and one that
23 allows relatively easy maintenance and access for tension
24 adjustment at the significant depths involved. The single modular
25 unit also allows for easy and inexpensive construction by allowing
26 for thermo plastic vacuum-formed construction, and easy
27 installation of a single unit.

28 While there have been shown and described particular embodi-

1 ments of the invention, it will be obvious to those skilled in the
2 art that changes and modifications may be made without departing
3 from the invention or its equivalent, and, therefore, it is
4 intended by the appended claims to cover all such changes and
5 modifications as fall within the true spirit and scope of the
6 invention.

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1 What is claimed is:

2 1. A combination single unit hydrotherapy and exercise device for
3 allowing aquatic exercise, massage, therapy and recreation,
4 including any one of swimming, walking or running in place,
5 comprised of:

6 a. A single seamless plastic enclosure having two ends
7 and bottom there between;

8 b. An open top opposite the bottom, said top defining
9 an outer perimeter sufficiently long and wide to
10 allow a swimmer to swim in place, and having steps
11 at one end as part of the single seamless enclosure
12 to allow access from the top to the bottom where
13 the bottom is sufficiently deep to allow an adult
14 to stand in water at chest high;

15 c. A shaft receiving hole near the bottom of the
16 enclosure;

17 d. Control buttons and safety stop buttons and means
18 at the top of the enclosure;

19 e. A treadmill having a frame and a treadmill belt
20 moved by a rotationally moving roller and shaft,
21 said shaft extending from the treadmill to exit the
22 wall of the enclosure through the shaft hole for
23 connecting to exterior rotational motor means, said
24 treadmill having a variable speed responsive to the
25 control buttons;

26 f. Sealing means to seal the shaft exit hole about the
27 shaft;

1 g. Swim jets at the front end of the enclosure and
2 having means for providing sufficiently powerful
3 water flow from the front to the back of the
4 enclosure so as to provide sufficient resistance to
5 allow swimming in place;

6 h. A treadmill receiving cavity at the bottom having a
7 depth approximately the height of the treadmill and
8 defining from an area on at least three sides of
9 the cavity to constitute a safety step off area.

10 2. The combination aquatic device in claim 1 having a
11 treadmill with impact reducing means for reducing the
12 impact of the feet on the treadmill.

13 3. The combination aquatic device in claim 2 wherein the
14 treadmill with impact reducing means is comprised of a
15 continuous loop treadmill belt having two sides, a
16 treadmill frame, having two sides defining the
17 approximate sides to which the treadmill belt extend, a
18 plurality of upper cross-members. A treadmill bed for
19 supporting the belt, which bed is supported by a
20 plurality/rigid supports; a plurality of individual
21 energy absorption means supporting each of the treadmill
22 rigid supports at the sides.

23 4. The combination aquatic device in claim 1 having
24 treadmill belt adjustment means capable of adjusting the
25 tension of the belt from above the treadmill while the
26 treadmill is in the treadmill receiving cavity.

27 5. The combination aquatic device in claim 2 wherein the
28 treadmill adjustment means are comprised of a wedge

1 shaped rigid member having a threaded screw therein
2 vertically moving the wedge shape in response to
3 rotational movement of the screw, such that the wedge
4 portion provides vertical movement towards and away from
5 a treadmill roller.

6. The aquatic device in claims 1, 2 or 3 having a cover
7 plate surrounding the treadmill for covering the
8 treadmill frame and a portion of the step off ledge, and
9 further having an access cavity in the enclosure adjacent
10 the treadmill receiving means, for access to the
11 treadmill shaft.

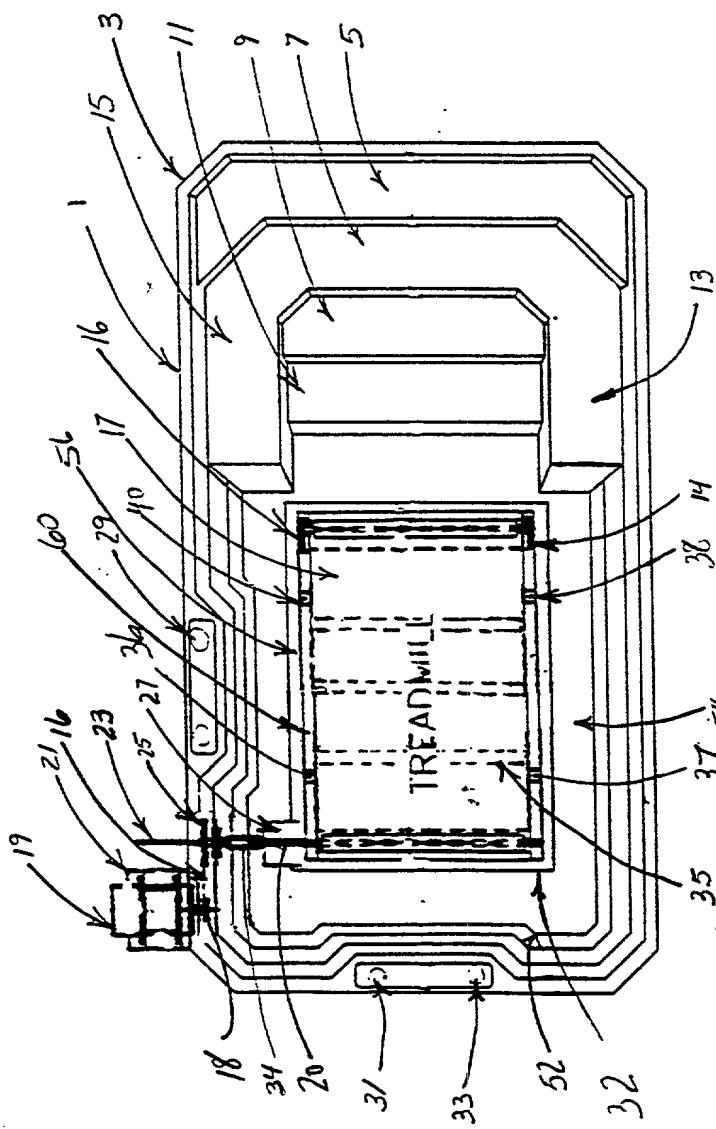
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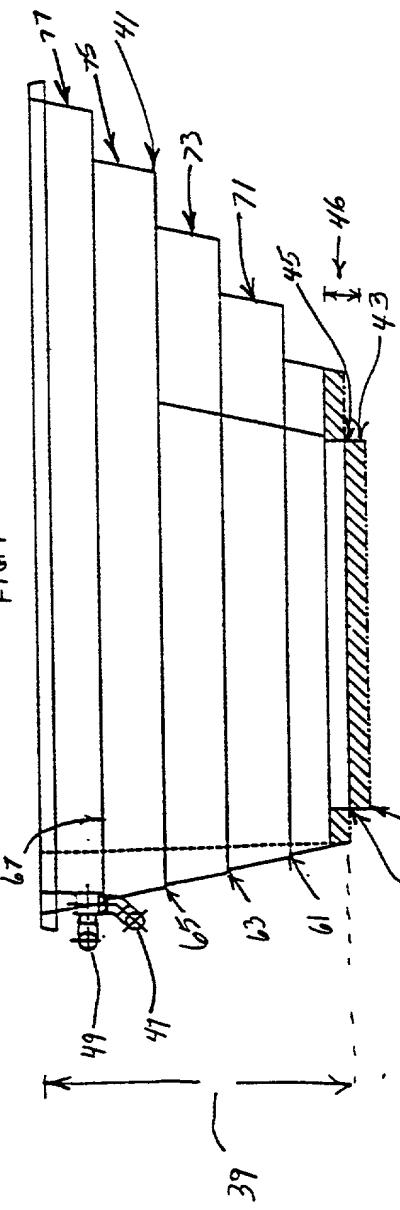
1 ABSTRACT:

2 A combination single unit hydrotherapy and exercise device is
3 disclosed, for allowing aquatic exercise, massage, therapy and
4 recreation, including any one of swimming, walking or running in
5 place, comprised of a single seamless plastic enclosure having two
6 ends and bottom there between an open top opposite the bottom, said
7 top defining an outer perimeter sufficiently long and wide to allow
8 a swimmer to swim in place, and having steps at one end as part of
9 the single seamless enclosure to allow access from the top to the
10 bottom where the bottom is sufficiently deep to allow an adult to
11 stand in water at chest high, a shaft receiving hole near the
12 bottom of the enclosure.

13 Control buttons and safety stop buttons means at the top of
14 the enclosure, a treadmill having a frame and a treadmill belt
15 moved by a rotationally moving roller and shaft, said shaft
16 extending from the treadmill to exit the wall of the enclosure
17 through the shaft hole for connecting to exterior rotational motor
18 means, said treadmill having a variable speed responsive to the
19 control buttons, sealing means to seal the shaft exit hole about
20 the shaft, swim jets at the front end of the enclosure and having
21 means for providing sufficiently powerful water flow from the
22 front to the back of the enclosure so as to provide sufficient
23 resistance to allow swimming in place, a treadmill receiving cavity
24 at the bottom having a depth approximately the height of the
25 treadmill and defining from an area on at least three sides of the
26 cavity to constitute a safety step off area.



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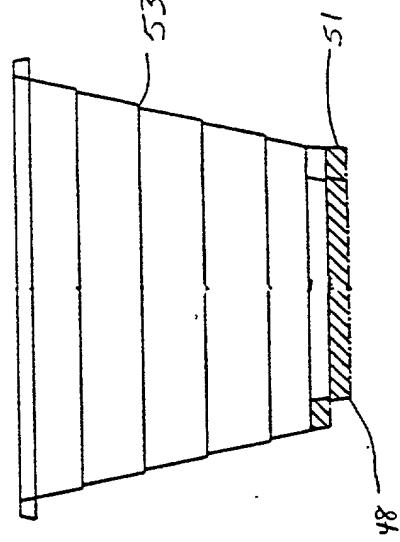


FIG. 3

FIG 4

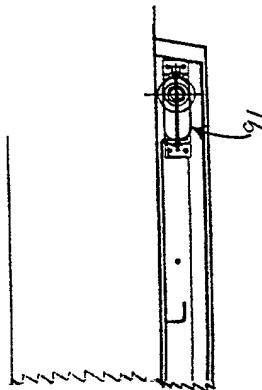
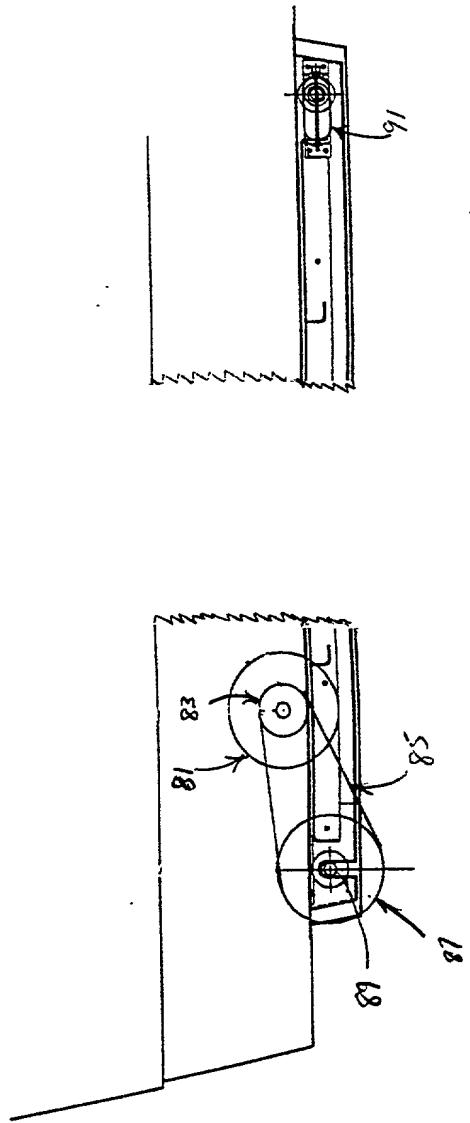
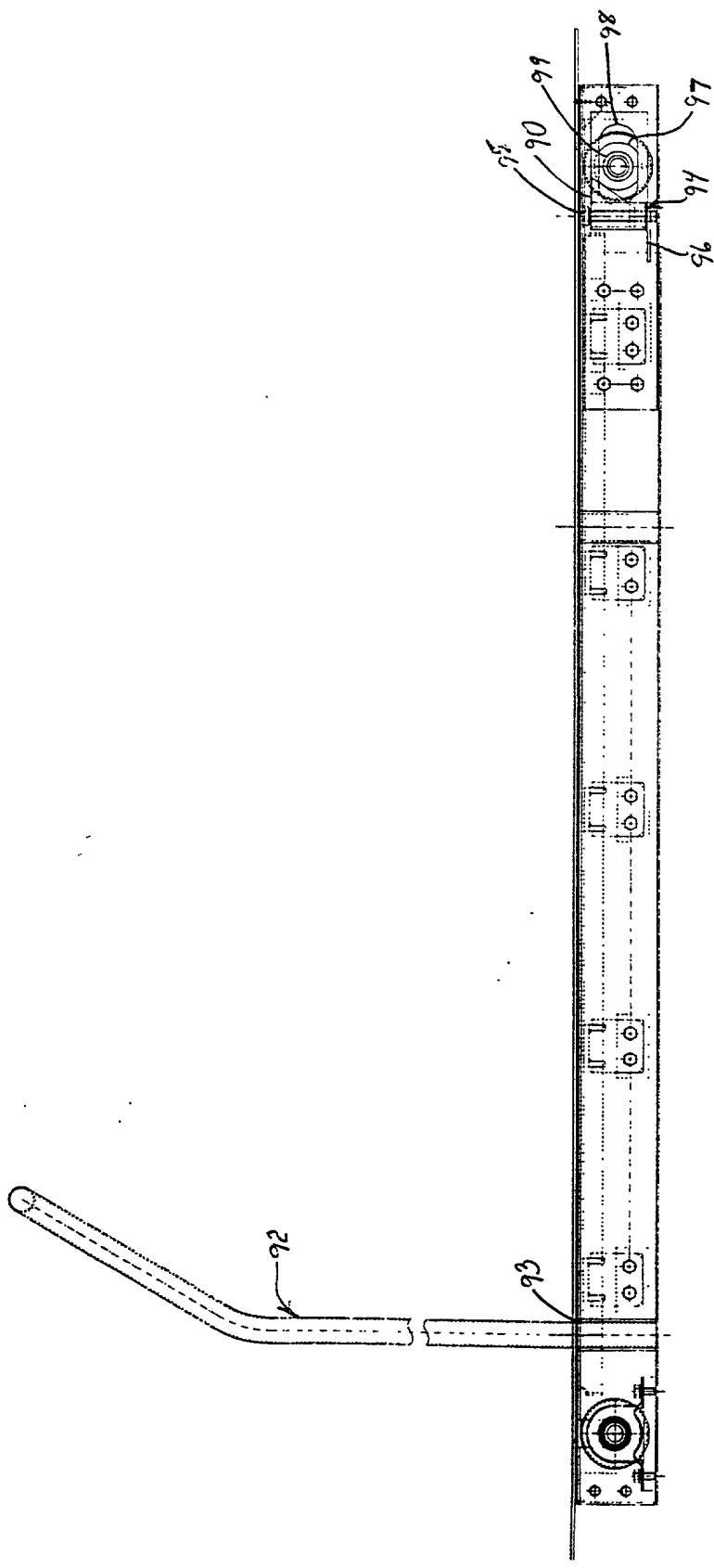
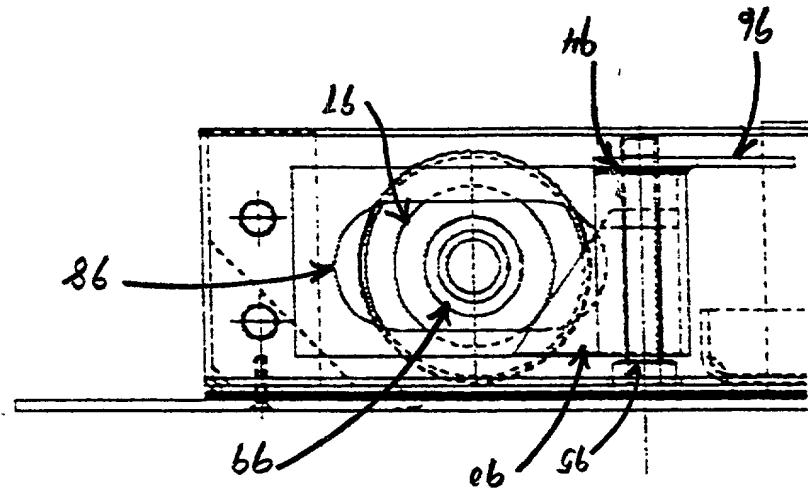


FIG 5



9 51 F



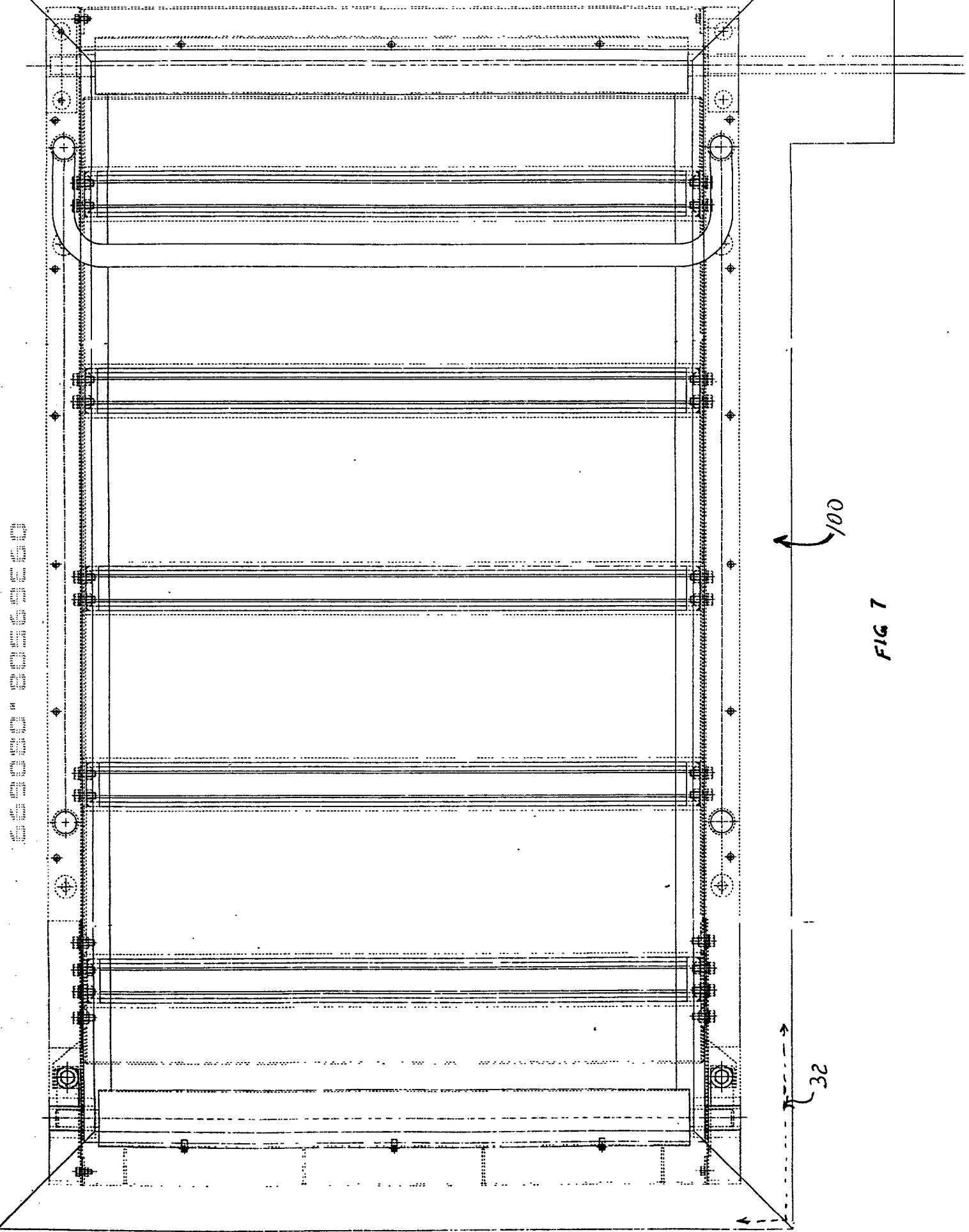


FIG 7

Fig 8(b)

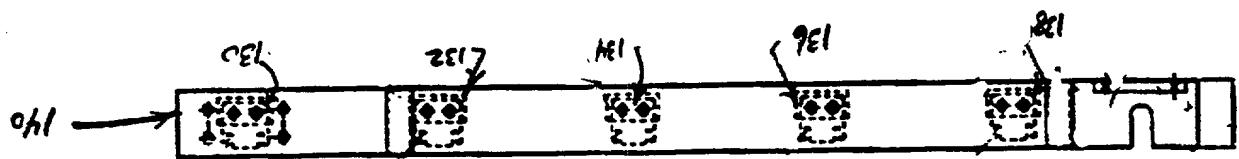


Fig 8(a)

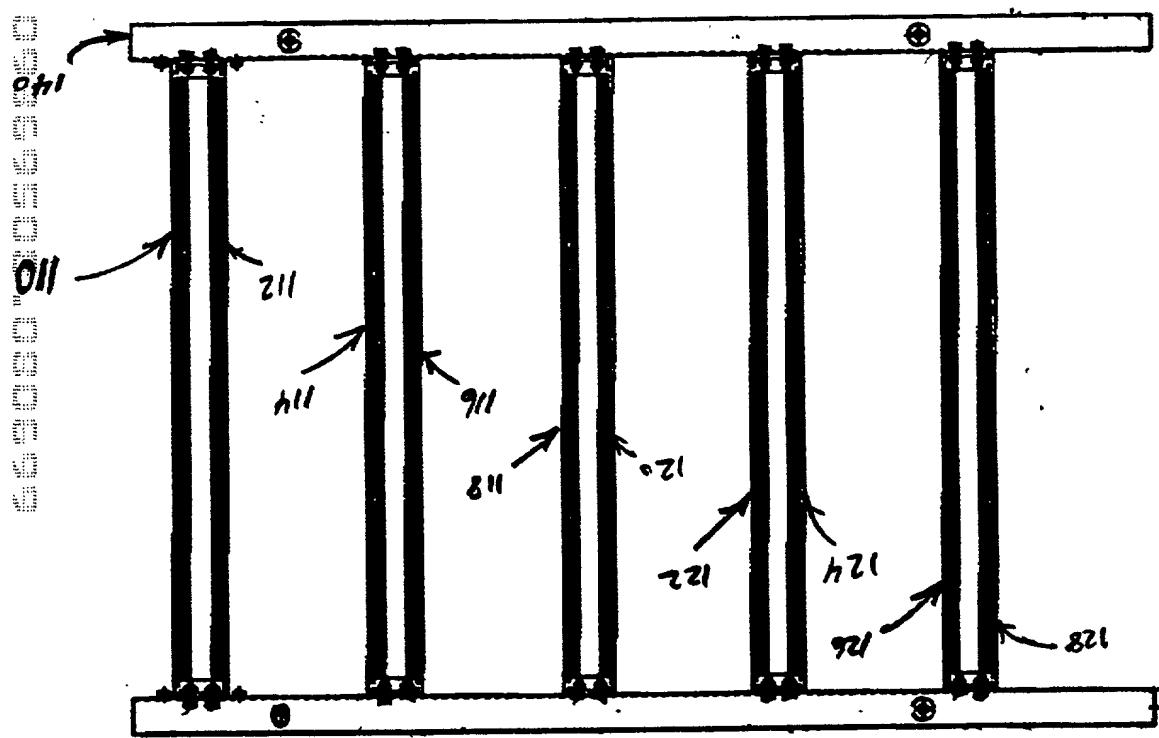
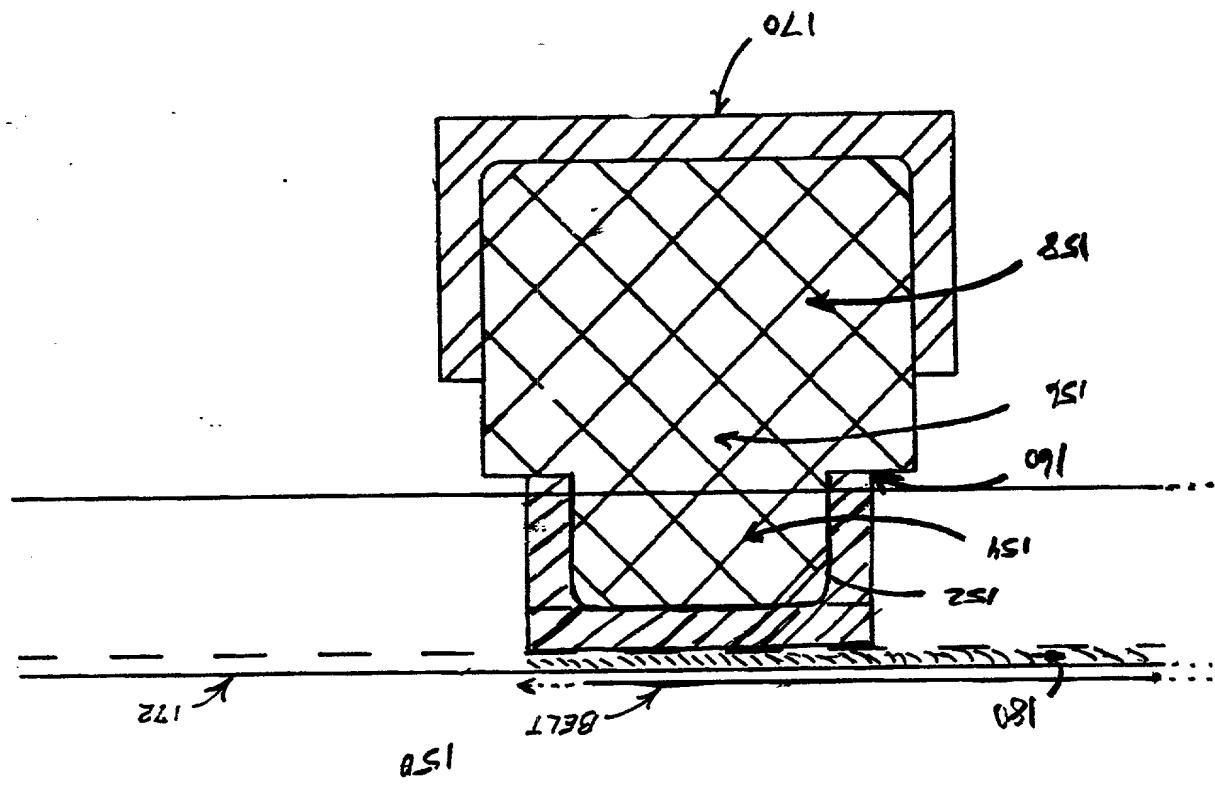


Fig. 9



**DECLARATION AND POWER OF
ATTORNEY - ORIGINAL APPLICATION**

Bruce J. Clark, Attorney
Attorney's No. 31,339

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

specification of which

(check one)

[] Is attached hereto
[] Was filed on _____ as
Application Serial No. _____
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the content of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, Section 1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)	Priority	Claimed
<u>None</u>	N/A	N/A
Number Country Date/Month/Year Filed		

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application in the manner provided by the first paragraph of Title

35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national PCT international filing date of this application:

APPLICATION SERIAL NO.	FILING DATE	STATUS-PATENTED, PENDING, ABANDONED
------------------------	-------------	--

POWER OF ATTORNEY: As a named inventor, I hereby appoint Bruce J. Clark, Registration No. 31,339, Commerce Bank Building Downtown, 100 East 9th St., P.O. Box 3555, Topeka, Kansas 66601, as attorney to prosecute this Application and transact all business in the Patent and Trademark office connected therewith.

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Clark & Baker, LLP
Commerce Bank Building Downtown
100 E. 9th Street, P. O. Box 3555
Topeka, Kansas 66601-3555
(785) 232-2200

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date 8/3/99


(NAME)

Residence: 4122 Nantucket Drive
Mechanicsburg, PA 17055

Citizenship: U.S.A.

**DECLARATION AND POWER OF
ATTORNEY - ORIGINAL APPLICATION**

Bruce J. Clark, Attorney
Attorney's No. 31,339

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

specification of which

(check one)

[] Is attached hereto
[] Was filed on _____ as
Application Serial No. _____
and was amended on _____
(if applicable)

I hereby state that I have reviewed and understand the content of the above-identified specification, including the claims, as amended by any amendment referred to above.

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APPLICATION SERIAL NO.	FILING DATE	STATUS-PATENTED, PENDING, ABANDONED
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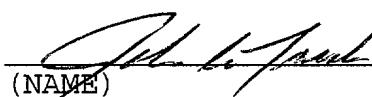
POWER OF ATTORNEY: As a named inventor, I hereby appoint Bruce J. Clark, Registration No. 31,339, Commerce Bank Building Downtown, 100 East 9th St., P.O. Box 3555, Topeka, Kansas 66601, as attorney to prosecute this Application and transact all business in the Patent and Trademark office connected therewith.

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Date 8/3/99


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